

VOLUME 4, 1969

CONTENTS

Number 1 — issued September 1969

- TRAMS, E. G., Hepatic insufficiency in spawning Pacific salmon. 1
- SCHMIDT, P. und G. TEUCHERT, Quantitative Untersuchungen zur Ökologie der Gastrotrichen im Gezeiten-Sandstrand der Insel Sylt. [Quantitative investigations on the ecology of Gastrotricha on the tidal beach of the island Sylt]. 4
- CZECZUGA, B. and R. CZERPAK, Carotenoids in the hermit crab *Clibanarius misanthrophus* (Crustacea, Paguridae) from the Black Sea. 24
- BHAUD, M., Etude de la migration verticale quotidienne des larves de *Mesochaetopterus sagittarius* à Nosy-Bé (Madagascar). [Study of the daily vertical migration of the larvae of *Mesochaetopterus sagittarius* of Nosy-Bé (Madagascar)]. 28
- ALEEM, A. A., Zonation, vesicle pressure and gas composition in *Fucus vesiculosus* and *Ascophyllum nodosum* at Kristineberg (West Coast of Sweden). 36
- LEE, J. J., W. A. MULLER, R. J. STONE, M. E. MCENERY and W. ZUCKER, Standing crop of foraminifera in sublittoral epiphytic communities of a Long Island salt marsh. 44
- RIEDL, R., Marinbiologische Aspekte der Wasserbewegung. [Marine biological aspects of water movement]. 62

Number 2 — issued October 1969

- PAINE, R. T. and R. L. VADAS, Calorific values of benthic marine algae and their postulated relation to invertebrate food preference. 79
- WINTER, J. E., Über den Einfluß der Nahrungskonzentration und anderer Faktoren auf Filtrierleistung und Nahrungsausnutzung der Muscheln *Arctica islandica* und *Modiolus modiolus*. [On the influence of food concentration and other factors on filtration rate and food utilization in the mussels *Arctica islandica* and *Modiolus modiolus*]. 87
- HAMMER, L., "Free space-photosynthesis" in the algae *Fucus virsoides* and *Laminaria saccharina*. 136
- GRANDPERRIN, R. et A. MICHEL, Evaluation des poids humides de micronekton après centrifugation. [Evaluation of micronekton wet weight after centrifugation]. 139
- ROBERTSON, P., Biological investigations of the deep sea. No. 48. Phyllosoma larvae of a scyllarid lobster, *Arctides guineensis*, from the western Atlantic. 143
- WEBBER, H. H. and A. C. GIESE, Reproductive cycle and gametogenesis in the black abalone *Haliotis cracheroidii* (Gastropoda: Prosobranchiata). 152
- FAGETTI, E. G., Larval development of the spider crab *Pisoides edwardsi* (Decapoda, Brachyura) under laboratory conditions. 160

Number 3 — issued November 1969

- ZELICKMAN, E. A., V. I. GELFAND and M. A. SHIFRIN, Growth, reproduction and nutrition of some Barents Sea hydromedusae in natural aggregations. 167
- RADHAKRISHNA, K., Primary productivity studies in the shelf waters off Alleppey, south-west India, during the post-monsoon, 1967. 174
- BEERS, J. R. and G. L. STEWART, Micro-zooplankton and its abundance relative to the larger zooplankton and other seston components. 182
- SAIJO, Y., S. IIZUKA and O. ASAOKA, Chlorophyll maxima in Kuroshio and adjacent area. 190
- HANDA, N. and K. YANAGI, Studies on water-extractable carbohydrates of the particulate matter from the northwest Pacific Ocean. 197
- HANDA, N., Carbohydrate metabolism in the marine diatom *Skeletonema costatum*. 208
- ZILLIOUX, E. J., A continuous recirculating culture system for planktonic copepods. 215
- KENNY, R., Temperature tolerance of the polychaete worms *Diopatra cuprea* and *Chlymenella torquata*. 219
- BRENKO, M. HRS. and A. CALABRESE, The combined effects of salinity and temperature on larvae of the mussel *Mytilus edulis*. 224
- CAMPBELL, S. A., Seasonal cycles in the carotenoid content in *Mytilus edulis*. 227
- HAMMEN, C. S., Lactate and succinate oxidoreductases in marine invertebrates. 233

VOLUME 4, 1969 CONTENTS (continued)

- KUTTY, M. N., Oxygen consumption in the mullet *Liza macrolepis* with special reference to swimming velocity. 239
- ANDERSON, J. W. and G. C. STEPHENS, Uptake of organic material by aquatic invertebrates. VI. Role of epiflora in apparent uptake of glycine by marine crustaceans. 243
- WOODHEAD, P. M. J. and J. N. WEBER, Coral genera of New Caledonia. 250
- BAYOUMI, A. R., Notes on the occurrence of *Tilapia zillii* (Pisces) in Suez Bay. 255
- BUDD, J. A., Catabolism of trimethylamine by a marine bacterium, *Pseudomonas* NCMB 1154. 257

Number 4 — issued December 1969

- APELT, G., Fortpflanzungsbiologie, Entwicklungszyklen und vergleichende Frühentwicklung acoeler Turbellarien. [Reproductive biology, life-cycles and comparative early ontogeny of acoelous turbellarians]. 267
- FOSTER, B. A., Tolerance of high temperatures by some intertidal barnacles. 326
- WHITE, F., Distribution of *Trypetesa lampas* (Cirripedia, Acrothoracica) in various gastropod shells. 333
- FOSTER, B. A. and J. A. NOTT, Sensory structures in the opercula of the barnacle *Elminius modestus*. 340
- KRISHNAMOORTHY, R. V. and A. VENKATRAMIAH, Myosin ATPase activity in an estuarine decapod crustacean, *Scylla serrata*, as a function of salinity adaptation. 345
- GESSNER, F., Photosynthesis and ion loss in the brown algae *Dictyopteris membranacea* and *Fucus virscoides*. 349
- KERAMBRUN, P. et K. H. SZEKIELDA, Composition élémentaire (C, H, N) de *Sphaeroma serratum* et *S. hookeri* (Crustacea: Isopoda). [Elementary composition (C, H, N) of *Sphaeroma serratum* and *S. hookeri* (Crustacea: Isopoda)]. 352

